

What is claimed is:

1. A wireless communication system comprising:

a wireless mobile station; and

5 a wireless base station coupled with the wireless mobile station through a wireless communication network,

wherein the wireless base station transmits location information to the wireless mobile station in response to a request of the wireless mobile station.

10 2. The wireless communication system of claim 1, wherein the wireless base station comprises a receiver for receiving a satellite signal from a satellite.

3. The wireless communication system of claim 2, wherein the wireless base station analyzes the satellite signal in response to the request of the wireless mobile station,
15 determines the location information and provides the determined location information to the wireless mobile station.

4. The wireless communication system of claim 1, wherein the signal transmitted and received between the wireless base station and the wireless mobile station satisfies IEEE
20 802.11 specification.

5. The wireless communication system of claim 1, wherein the wireless base station comprises a memory for storing the location information.

6. The wireless communication system of claim 5, wherein the wireless base station provides the wireless mobile station with the location information stored in the memory in response to the request of the wireless mobile station.

5 7. The wireless communication system of claim 1, further comprising:
a base station for receiving a satellite signal from a satellite, determining location information according to the received satellite signal, and transmitting the determined location information to the wireless base station through wire.

10 8. The wireless communication system of claim 7, wherein the wireless base station provides the wireless mobile station with the location information received from the base station in response to the request of the wireless mobile station.

15 9. A method of determining location information of a wireless mobile station, wherein the wireless mobile station is coupled with a wireless base station through a wireless communication network, the method comprising:
requesting location information from the wireless base station;
receiving the location information from the wireless base station;
estimating a distance between the wireless mobile station and the wireless base station;
20 and
determining a location from the received location information and the estimated distance.

10. The method of claim 9, further comprising receiving a satellite signal from a

satellite at a receiver of the wireless base station.

11. The method of claim 9, requesting location information comprises:

determining whether the receiver can access the satellite signal; and

5 requesting the wireless base station to transmit the location information upon
determining that the receiver cannot access the satellite signal.

12. The method of claim 10, further comprising:

requesting the wireless base station to transmit information; and

10 receiving the information from the wireless base station.

13. The method of claim 12, wherein the signal transmitted and received between
the wireless base station and the wireless mobile station satisfies IEEE 802.11 specification.

15 14. A method in which a wireless base station communicates with a wireless mobile
station through a wireless communication network to provide location information to the
wireless mobile station, the wireless mobile station being provided with a GPS receiver for
receiving a satellite signal, the method comprising:

receiving a location information request from the wireless mobile station;

20 determining the location information from the satellite signal received by the GPS
receiver; and

transmitting the determined location information to the wireless mobile station.

15. The method of claim 14, further comprising:

receiving an information request from the wireless mobile station; and
transmitting the information received from the GPS receiver to the wireless mobile
station.

- 5 16. A method in which a wireless base station communicates with a wireless mobile
station through a wireless communication network to provide location information to the
wireless mobile station, the wireless mobile station being provided with a memory storing
location information, the method comprising:
- 10 receiving a location information request from the wireless mobile station;
reading location information stored in the memory; and
transmitting the read location information to the wireless mobile station.